

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Marie D'Angelo et al.

SERIAL NO.: 10/520,647

CONFIRMATION NO.: 5196

FILING DATE: January 5, 2005

TITLE: METALLIC NANO-OBJECTS FORMED ON SEMICONDUCTOR SURFACES AND MANUFACTURING PROCESS FOR THESE NANO-OBJECTS

EXAMINER: Not Yet Assigned

ART UNIT: 2631

Certificate of Mailing

I hereby certify that this paper is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop: Missing Parts, Commissioner For Patents, P.O. Box 1450 Alexandria, VA 22313-1450, on the date printed below:

Date: 4-10-06 Signature: Kathleen K. Muto
Kathleen K. Muto

MAIL STOP: Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REPLACEMENT OF FILING RECEIPT

We received the attached filing receipt for the above-referenced case, which states the following:

- 1) the title as "Metal nano-objects, formed on semiconductor surfaces, and method for making said nano-objects"; and
- 2) under Power of Attorney, "Robert Krebs – 25,885."

Therefore, please amend the appropriate records to reflect the following corrections:

- 3) the title as Metallic Nano-Objects Formed On Semiconductor Surfaces and Manufacturing Process For These Nano-Objects, pursuant to the attached courtesy copy of the first page of the Specification as filed on January 5, 2005, and
- 4) the correct listing of attorneys for this matter; a Declaration and Power of Attorney and Patent Practitioners To Be Made of Record (courtesy copies attached) were originally submitted on January 5, 2005. We submit herewith a document entitled "Patent

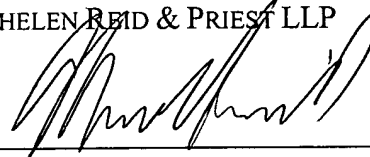
Practitioners to be Made of Record Pursuant to 37 C.F.R. §1.32(c)(3)” to limit those identified to ten or fewer practitioners.

Additionally, Applicants request an updated filing receipt reflecting the amendments requested.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account No. 50-1698.

Respectfully submitted,

THELEN REID & PRIEST LLP



Marc S. Hanish
Reg. No. 42,626

Dated: _____

4/10/08

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COPY

**METALLIC NANO-OBJECTS FORMED ON SEMICONDUCTOR SURFACES AND
MANUFACTURING PROCESS FOR THESE NANO-OBJECTS**

DESCRIPTION

Technical Domain

[0001] This invention relates to metallic nano-objects formed on the surfaces of a semiconductor and more particularly a semiconductor with a large gap, in other words with a large forbidden band width, and a process for manufacturing these nano-objects.

[0002] More particularly, the invention relates to metallic nano-objects, for example such as atomic threads, single dimensional nano-structures and metallic quantum dots, particularly formed on silicon carbide surfaces, and a process for manufacturing such nano-objects.

[0003] The invention is particularly applicable to the nano-electronics field.

10 State Of Prior Art

[0004] Nano-objects are manufactured by auto-organisation, particularly at or above room temperature, without individual manipulation of atoms, particularly by near field microscopy, which is usually done cold (using liquid nitrogen or liquid helium) to prevent migration of atoms (see documents [7] to [9] mentioned below).

15 [0005] Further information about surface treatment (particularly semiconducting surfaces) and the manufacture of nanostructures, and particularly single-dimensional nanostructures, can be obtained in the following documents:

[1]. Electronic promotion of silicon nitridation by alkali metals.

P. Soukiassian, H.M. Bakshi, H.I. Starnberg, Z. Hurych, T. Gentle and K.P. Schuette

B 14166.3 PV



Docket No. 034299-617

COPY

Declaration, Power Of Attorney and Petition

Page 1 of 3

WE (I) the undersigned inventor(s), hereby declare(s) that :

My residence, post office address and citizenship are as stated below next to my name,

We (I) believe that we are (I am) the original, first, and joint (sole) inventor(s) of the subject matter which is claimed and for which a patent is sought on the invention entitled

METALLIC NANO-OBJECTS FORMED ON SEMICONDUCTOR SURFACES AND MANUFACTURING PROCESS FOR THESE NANO-OBJECTS

the specification of which

- ☐ is attached hereto.
- ☐ was filed on
as Application Serial No.
and amended on
- ☒ was filed as PCT international application
Number PCT/FR03/02093
on July 4, 2003
and was amended under PCT Article 19
on

We (I) hereby state that we (I) have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

We (I) acknowledge the duty to disclose information known to be material to the patentability of this application as defined in Section 1.56 of Title 37 Code of Federal Regulations.

We (I) hereby claim foreign priority benefits under 35 U.S.C. § 119 (a)-(d) or § 365 (b) of any foreign application(s) for patent or inventor's certificate, or § 365 (a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT International application having a filing date before that of the application on which priority is claimed. Prior Foreign Application (s)

Application No.	Country	Day/month/Year	Priority Claimed
02 08457	FRANCE	JULY 05, 2002	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
_____	_____	_____	<input type="checkbox"/> YES <input type="checkbox"/> NO
_____	_____	_____	<input type="checkbox"/> YES <input type="checkbox"/> NO
_____	_____	_____	<input type="checkbox"/> YES <input type="checkbox"/> NO

We (I) hereby claim the benefit under Title 35, United States Code, § 119 (e) of any United States provisional application(s) listed below.

(Application Number)

(Filing Date)

(Application Number)

(Filing Date)

We (I) hereby claim the benefit under 35 U.S.C. §120 of any United States application(s), or § 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56 which became available between the filing date of prior application and the national or PCT International filing date of this application.

Application Serial No.

Filing Date

Status (pending, patented,
abandoned)

And we (I) hereby appoint : Robert E. Krebs, Registration No. 25,885; David B. Ritchie, Registration No. 31,562; Marc S. Hanish, Registration No. 42,626; John P. Schaub, Registration No. 42,125; Gerhard W. Thielman, Registration No. 43,186; Adrienne Yeung, Registration No. 44,000; Steven J. Robbins, Registration No. 40,299; Thierry K. Lo, Registration No. 49,097; William Samuel Niece, Registration No.: P47,824; and John Klaas Uilkema, Registration No. 20,282 ; our (my) attorneys of record with full power of substitution and revocation, to prosecute this application and transact all business in the United States Patent and Trademark Office connected therewith; and we (I) hereby request that all correspondence regarding this application be sent to the firm of THELEN REID & PRIEST LLP whose Post Office Address is : P.O. Box 640640, San Jose, CA 95164-0640.

We (I) declare that all statements made herein of our (my) own knowledge are true and that all statements made on information and belief are believed to be true ; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such wilful false statements may jeopardise the validity of the application or any patent issuing thereon.

D'ANGELO Marie

NAME OF FIRST SOLE INVENTOR

Signature of Inventor

Date

Residence : 65 rue du Moulin
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FRANCE

Citizen of : France

Post Office Address : The same as residence

ARISTOV Victor

NAME OF SECOND INVENTOR


Signature of Inventor

Date 24/06/2004

SOUKASSIAN Patrick

NAME OF THIRD INVENTOR


Signature of Inventor

Date 24-06-2004

NAME OF FOURTH INVENTOR

Signature of Inventor

Date

NAME OF FIFTH INVENTOR

Signature of Inventor

Date

Residence : Central Street 4-A
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Citizen of : Russie

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LES CHEVAUSE FRANCE
Citizen of : FRANCE

Post Office Address : The same as residence

Residence : _____

Citizen of : _____

Post Office Address : The same as residence

Residence : _____

Citizen of : _____

Post Office Address : The same as residence



Docket No. 034299-617

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

COPY

APPLICANT: D'Angelo, Marie et al.
SERIAL NO.: Herewith
TITLE: Metal Nano-Objects, Formed on Semiconductor Surfaces, and
Method for Making Said Nano-Objects
EXAMINER: UNASSIGNED
ART UNIT: UNASSIGNED

MAIL STOP: PCT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PATENT PRACTITIONERS TO BE MADE OF RECORD

Please recognize the following ten patent practitioners in the attached Declaration and Power of Attorney as being of record in the application or patent to which the power of attorney is directed:

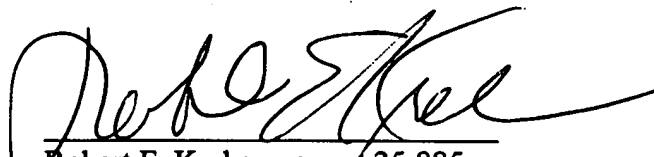
Robert E. Krebs, Reg. No. 25,885	Yukiko Maekawa, Reg. No. 50,307
Marc S. Hanish, Reg. No. 42,626	Khaled Shami, Reg. No. 38,745
John P. Schaub, Reg. No. 42,125	Adrienne Yeung, Reg. No. 44,000
Thierry K. Lo, Reg. No. 49,097	William Winters, Reg. No. 42,232
Masako Ando, (37 C.F.R. §10.9 (b))	Hal J. Bohner, Reg. No. 27,856

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account No. 50-1698.

Respectfully submitted,
THELEN REID & PRIEST LLP

Dated: Jan 5, 2005

THELEN REID & PRIEST LLP
P.O. Box 640640
San Jose, CA 95164-0640
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Robert E. Krebs, reg. no. 25,885

DOCKETED
JAN 26 2005

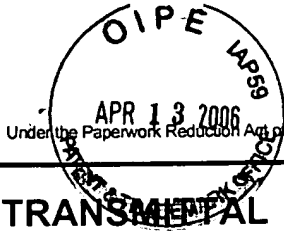
COPY

Serial/Patent No.: 10/520647 Filing/Issue Date: 1/5/05
Applicant: D'ANGELO, Marie; ARIS, Victor and SOUKIASSIAN, Patrick
Title: Metal Nano-Objects, Formed on Semiconductor Surfaces, and Method for Making Said Nano-Objects
DT03 REC'd PCT/PTO 05 JAN 2005

TRP Docket No.: 034299-617 Atty/Sec'y Initials: REK/av
Date Mailed: 1/5/05 Docket Due Date: 1/5/05

The following has been received in the U.S. Patent & Trademark Office on the date stamped hereon:

<input type="checkbox"/> Amendment/Response (____ pgs.)	<input type="checkbox"/> IDS & PTO 1449 (____ pgs.)
<input type="checkbox"/> Appeal Brief (____ pgs.) (in triplicate)	<input type="checkbox"/> ____ Pieces of Prior Art Enclosed
<input checked="" type="checkbox"/> Application - Utility (26 pgs. with abstract abstract)	<input type="checkbox"/> Issue Fee Transmittal
<input type="checkbox"/> Application - Rule 1.53(b) Continuation (____ pgs.)	<input checked="" type="checkbox"/> Submission of Formal Drawings: 4 # of sheets includes 7 figures
<input type="checkbox"/> Application - Rule 1.53(b) Division (____ pgs.)	<input type="checkbox"/> Notice of Appeal
<input type="checkbox"/> Application - Rule 1.53(b) CIP (____ pgs.)	<input checked="" type="checkbox"/> Postcard
<input type="checkbox"/> Application - Rule 1.53(d) CPA (____ pgs.)	<input checked="" type="checkbox"/> Preliminary Amendment (3 pgs.)
<input type="checkbox"/> Application - PCT (____ pgs.)	<input type="checkbox"/> Reply Brief (____ pgs.)
<input type="checkbox"/> Application - Provisional (____ pgs.)	<input type="checkbox"/> Req and Cert. Not to Publish - Rule 1.213
<input checked="" type="checkbox"/> Assignment and Cover Sheet	<input type="checkbox"/> Request for Continued Examination (RCE) (____ pgs.)
<input type="checkbox"/> Certificate of Correction	<input type="checkbox"/> Request for Extension of Time ____ Month(s)
<input type="checkbox"/> Certificate of Mailing	<input type="checkbox"/> Response to Notice to File Missing Parts
<input checked="" type="checkbox"/> Declaration & POA (<u>3</u> pgs.)	<input type="checkbox"/> Copy of PTO Notice to File Missing Parts
<input type="checkbox"/> Fee Transmittal	<input checked="" type="checkbox"/> Transmittal Letter (original & copy)
<input type="checkbox"/> Drawings (informal): ____ # of sheets includes ____ figures	<input checked="" type="checkbox"/> Express Mail No.: <u>EV310 862 051US</u>
<input checked="" type="checkbox"/> Other: Requete PCT; PCT/IB/308; WO2004/005593A2; PCT/ISA/220; PCT/ISA/210; PCT/IPEA/401; patent practitioners	<input checked="" type="checkbox"/> Check(s) <u>\$1450.00 & \$40.00</u>
	<input type="checkbox"/> Deposit Acct. No. 50-1698 \$ ____
	Patent Code: ____
	Client/Matter # ____



PTO/SB/21 (09-04)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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RECEIPT
IFW**TRANSMITTAL
FORM**

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission 12

Application Number	10/520,647
Filing Date	01/05/2005
First Named Inventor	Marie D'Angelo
Art Unit	2812
Examiner Name	Not Yet Assigned
Attorney Docket Number	034299-617

ENCLOSURES (check all that apply)

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/ Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Replacement of Filing Receipt (w/ attachments; Patent Practitioners To Be Made of Record Under 37 CFR 1.32(c)(3); Return Postcard
Remarks		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm	THELEN REID & PRIEST		
Signature			
Printed Name	Marc S. Hanish		
Date	4/10/06	Reg. No.	42,626

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Signature			
Typed or printed name	Kathleen K. Muto	Date	4-10-06

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.